

REMARKS

In response to the Final Office Action mailed on March 11, 2008, Applicant respectfully requests the Examiner to reconsider the above-captioned application in view of the foregoing amendments and the following comments.

Claim Rejections

All pending claims were rejected in the Office Action of March 11, 2008. Claim 25 was rejected under 35 U.S.C. § 103(a) over Lebel (US Patent Application Publication 2003/0050547) in view of Markle (US Patent 5,596,988). Applicant respectfully traverses this rejection.

The Office Action states that Markle teaches a "plurality of gas sensors, including those for carbon dioxide and oxygen into distal extremity of the cannula (column 6 lines 1-3)" and that "[i]t would have been obvious to one of ordinary skill in the art . . . to have made the system of Lebel with an additional gas sensor for oxygen, and size to the system to fit into small vessels, having an external diameter between 0.010 and 0.035 inches, as taught by Markle." The Office Action further states that "Lebel does not disclose the preferred diameter range for the cannula." (Office Action, page 2.) Lebel further fails to disclose a sensor "whereby the sensor assembly comprises a tube, a proximal sensor and a distal sensor, the proximal sensor comprising an electrode that extends at least partially around the tube and at least one conductor coupled to the distal sensor and extending through the tube" as claimed in the currently amended version of Claim 25.

Markle, like Lebel, fails to address the diameter of the proximal extremity. (*Cf.* Fig. 1, element 13; col. 6, ll. 35-38.) Instead, Markle focuses on the "internal diameter" of the "distal portion sheath 2 terminating in a distal end 3." (Col. 5, ll. 52-67.) In contrast, the Applicant's proximal extremity is not designed within the constraint of fitting into small vessels as the Examiner points out is taught by Markle.

Markle also does not disclose a sensor "whereby the sensor assembly comprises a tube, a proximal sensor and a distal sensor, the proximal sensor comprising an electrode that extends at least partially around the tube and at least one conductor coupled to the distal sensor and extending through the tube" as claimed in the currently amended version of Claim 25. In contrast, Markle teaches sensors separately mounted in series in a "staggered relationship" (col. 6, ll. 1-12). Thus, the prior art of record also fails to disclose or make obvious a tube, a proximal

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sensor and a distal sensor, the proximal sensor comprising an electrode that extends at least partially around the tube and at least one conductor coupled to the distal sensor and extending through the tube. For at least these reasons Claim 25 is allowable.

Claims 26, 28, 29, 63, and 64 depend from allowable Claim 25 and currently stand rejected over Lebel in view of Markle. At least for the reasons discussed above, none of these references alone or in combination with the other discloses the features of Claims 26, 28, 29, and 63 in combination with the limitations of Claim 25. The cited references are, therefore, an inadequate basis for the present rejections, and the Applicant submits that Claims 26, 28, 29, and 63 are allowable.

Claim 27 was rejected under 35 U.S.C. § 103(a) over Lebel in view of Markle, and further in view of Schulman (US Patent 5,497,772). Schulman discloses a glucose monitoring system, but fails to address at least the deficiencies discussed above with respect to Claim 25. Schulman is, therefore, an inadequate basis for the present rejections, and the Applicant submits that Claim 27 is allowable.

The Examiner rejected Claims 56-58 and 60-61 under 35 U.S.C. § 103(a) over Lebel in view of Markle, and further in view of Cheney (US Patent 5,391,250). Cheney discloses thin film sensor fabrication methods, but fails to address at least the deficiencies discussed above with respect to Claim 25. Cheney is, therefore, an inadequate basis for the present rejections, and the Applicant submits that Claims 56-58 and 60-61 are allowable.

The Examiner rejected Claim 59 under 35 U.S.C. § 103(a) over Lebel in view of Markle and Cheney, and in further view of Schulman (US Patent Application Publication 2001/0051768). As discussed above, Schulman discloses a glucose monitoring system, but fails to address at least the deficiencies discussed above with respect to Claim 25. Schulman is, therefore, an inadequate additional basis for the present rejections, and the Applicant submits that Claims 56-58 and 60-61 are allowable.

The Examiner rejected Claim 62 under 35 U.S.C. § 103(a) over Lebel in view of Markle and Cheney, and in further view of Pantages (US Patent Application Publication 2001/0029337). Pantages discloses an imaging guidewire that fails to address at least the deficiencies discussed above with respect to Claim 25. Pantages is, therefore, an inadequate additional basis for the present rejections, and the Applicant submits that Claim 62 is allowable.

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The Examiner rejected Claim 65 under 35 U.S.C. § 103(a) over Lebel in view of Markle and Cheney, and in further view of Kirsch (US Patent 6,503,225). Kirsch discloses a blood purification device that fails to address at least the deficiencies discussed above with respect to Claim 25. Kirsch is, therefore, an inadequate additional basis for the present rejections, and the Applicant submits that Claim 65 is allowable.

The Examiner rejected Claims 68 and 69 under 35 U.S.C. § 103(a) over Lebel in view of Markle and Cheney, and in further view of Webber (US Patent 6,166,614). Claim 25, from which Claims 68 and 69 depend, recites that “the distal extremity of the cannula is adapted for slidable travel through the introducer when inserting the cannula into the vessel, the cannula and connector having a size which permits the introducer to be slid off of the proximal extremity of the cannula and the connector after the distal extremity of the cannula has been inserted into the vessel.” Webber does not disclose this limitation in combination with the other limitations of Claim 25 and the additional limitations of either Claim 68 or Claim 69. Webber is, therefore, an inadequate additional basis for the present rejections, and the Applicant submits that Claims 68 and 69 are allowable.

Claim 70 is also in condition for allowance. Claim 70 was rejected under 35 U.S.C. § 103(a) over Lebel in view of Markle and Kirsch. Kirsch discloses a device for removal of gas bubbles and dissolved gases in liquid, not a device capable of ascertaining or meant to ascertain the amount or concentration of gas bubbles and dissolved gases in liquid. Kirsch teaches that hollow fiber members that can be coated with various polymers, including polymethylpentene, are disposed within a housing 20 coupled to a fluid infusion line 12 comprising “an outlet port 30 for discharging the degassed liquid for delivery to an internal delivery site of a patient.” (Col. 3, ll. 33-45, col. 4, ll.35-45.) Thus, Kirsch describes an application in a non-analogous art, the art of degassing blood before it flows into a patient through a fluid infusion line, and, therefore, does not provide disclosure relevant to a rejection of the probe to ascertain characteristics of blood of Claim 70 under 35 U.S.C. § 103(a).

Additionally, Claim 70 has amended to recite that “the oxygen and carbon dioxide sensor assembly is mounted in the distal extremity of the cannula and comprises a tube having a distal portion, a first electrode, a second electrode, first and second conductors extending from the proximal extremity of the cannula to the oxygen and carbon dioxide sensor assembly, wherein

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the first conductor is coupled to the first electrode and the second conductor extends through the tube and is coupled to the second electrode, the tube serving as a support for the first electrode and as a conduit for the second conductor.” Thus, Claim 70 is also allowable because the prior art at least fails to disclose or make obvious at least an oxygen and carbon dioxide sensor assembly being mounted in the distal extremity of the cannula and comprising a tube having a distal portion, a first electrode, a second electrode, first and second conductors extending from the proximal extremity of the cannula to the oxygen and carbon dioxide sensor assembly, wherein the first conductor is coupled to the first electrode and the second conductor extends through the tube and is coupled to the second electrode, the tube serving as a support for the first electrode and as a conduit for the second conductor.

Claims 71-73 were rejected under 35 U.S.C. § 103(a) over Lebel in view of Markle and Kirsch, and in further view of Cheney. As discussed above, Cheney discloses thin film sensor fabrication methods. Cheney, in combination with Markle and Kirsch provides, therefore, inadequate additional basis for the present rejections, and the Applicant submits that Claims 71-73 are allowable.

Thus, the Applicant submits that all of the pending claims are patentable over the references of record and that the application is, therefore, in condition for allowance. The Applicants respectfully request the Examiner to mail a notice of allowance in due course.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

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Co-Pending Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Serial Number	Title	Filed
12/027,933	PROBE AND DISPLAY HAVING A GAS SENSOR ASSEMBLY AND SURFACE TREATMENT	2/7/2008
12/027,915	PROBE WITH THE GAS PERMEABLE MATERIAL SURROUNDING A GAS SENSOR ASSEMBLY	2/7/2008
12/027,902	SENSOR WITH CONDUCTOR AND SEALING GLASS	2/7/2008
12/027,898	DISPLAY AND PROBE HAVING A REMOVABLE CONNECTIONS	2/7/2008
12/027,905	SENSOR PROBE AND DISPLAY MODULE	2/7/2008

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 6-11-08

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